

## CLAIM AMENDMENTS

1           1. (currently amended) A method for controlling the  
2 configuration of elements of a telecommunications network [[(N)]]  
3 comprising a plurality of nodes, the method comprising the steps  
4 of: [[-]]

5           generating a model configuration [[(M1)]] of said  
6 elements ~~, said model configuration~~ comprising, for at least one  
7 function of each element subjected to control, a respective model  
8 of implementation of the function itself, [[-]]

9           collecting, for each element subjected to control, at  
10 least one respective set of configuration data [[(..., CFk\_1, CFk,  
11 CFk+1,...)]] of the element itself, [[and -]]

12           verifying [[(C)], for each element subjected to control  
13 and in the absence of interaction with the element itself [[, the]]  
14 correspondence between said at least one function [[,]] as  
15 implemented on the basis of said at least one respective set of  
16 configuration data of the element [[,]] and said model of  
17 implementation of the function itself included in said model  
18 configuration, and (M1), ~~characterized in that said~~

19           performing the steps of generating a model configuration  
20 [[(M1)]], collecting said at least one respective set of  
21 configuration data of the element and verifying said correspondence  
22 ~~are performed~~ in relation with at least one [[among]] of the group  
23 including: [[-]]

an interfacing element between two nodes  $[(k, k+1)]$  of said plurality, and  $[-]$  a plurality of respective sets of configuration data  $[(CF, CM)]$  of said element, said plurality of respective sets of configuration data expressing respective different configuration states of the element.

2. (currently amended) The method as claimed in claim 1, ~~characterized in that it~~ further ~~comprises~~ comprising the steps of:  $[-]$

simulating  $[(S),]$  on the basis of said at least one set of configuration data of the element and in the absence of interaction with the element subjected to control  $[,]$  the implementation of said at least one function by generating at least one respective outcome of implementation of the function itself through the element subjected to control, and  $[-]$

verifying ~~(C)~~ the correspondence between said at least one respective outcome of implementation obtained by simulation and the corresponding implementation model included in said model configuration  $[(M1)]$ .

3. (currently amended) The method as claimed in claim 1, further comprising or claim 2, ~~characterized in that it~~ ~~comprises~~ the step of

4           selecting said plurality of respective sets of  
5   configuration data as exhaustive representation of the  
6   configuration states allowed for said element.

1           4. (currently amended) The method as claimed in claim  
2   1, further comprising any of the claims 1 to 3, characterized in  
3   that it comprises the step of

4           modifying the configuration data included in said at  
5   least one respective set of configuration data.... CFk-1, CFk,  
6   CFkl,...)] of each element subjected to control in order to obtain  
7   the correspondence between the actual configuration of the element  
8   and said model configuration [[(M1)]].

1           5. (currently amended) The method as claimed in ~~any of~~  
2   ~~the previous claims, characterized in that it comprises claim 1,~~  
3   ~~further comprising~~ the step of

4           selecting said model configuration [[(M1)]] as  
5   representative of at least one [[among]] of the group including:

6           a set of configuration data meant to be identical on  
7           all homologous elements of the network in the  
8           cases of configuration control;

9           a set of expected behaviours for an element in the  
10          case of functional analysis; and

11 a set of exhaustive behaviors of all elements able  
12 to be traversed in the case of simulation of a  
13 determined service throughout the network.

1 6. (currently amended) The method as claimed in ~~any of~~  
2 ~~the claims 1 to 5, characterized in that it comprises~~ claim 1,  
3 further comprising the step of  
4 providing a control management station  $[(W1)]$  for the  
5 generation of said model configuration  $[(M1)]$ .

1 7. (currently amended) The method as claimed in ~~any of~~  
2 ~~the previous claims, characterized in that it comprises~~ claim 1,  
3 further comprising the step of  
4 providing a plurality of control stations  $[(U1, \dots,$   
5  $Un)]$  able to start the execution of said verifying step  $[(C)]$ .

1 8. (currently amended) The method as claimed in ~~any of~~  
2 ~~the claims 1 through 7, characterized in that~~ claim 1 wherein at  
3 least one ~~, and preferably all,~~ of said steps of generating,  
4 collecting, simulating, verifying and modifying  $[(are)]$  is  
5 configured to be performed in a centralized position with respect  
6 to said elements subjected to control.

1 9. (currently amended) The method as claimed in claim  
2 ~~2, characterized in that~~ wherein said simulating step is performed

on the basis of at least one respective set of analysis functions  
[[A]] representative of a respective element model.

10. (currently amended) The method as claimed in claim  
2 ~~or claim 9, characterized in that wherein~~ said simulating step is  
conducted ~~[[in]]~~ step-by-step ~~fashion~~.

11. (currently amended) A system for controlling the  
configuration of elements of a telecommunications network ~~[[N]]~~  
comprising a plurality of nodes, the system comprising: ~~[[--]]~~  
a database ~~[[DB]]~~ containing a model configuration  
[[M1]] of the elements of said network and ~~{N}~~, ~~said model~~  
~~configuration~~ comprising

for at least one function of each element subjected  
to control ~~[[,]]~~ a respective model of  
implementation of the function itself ~~, said~~  
~~database {DB} further comprising,~~  
for each element subjected to control ~~[[,]]~~ at least  
one respective set of configuration data  
[[(..., CFk\_1, CFk, CFk+1,...)] of the element  
itself ~~[[, and]]~~

for each element subjected to control a verification  
module ~~[[C]]~~ to verify ~~, for each element~~  
~~subjected to control and~~ in the absence of  
interaction with the element itself ~~[[, the]]~~

19                   correspondence between said at least one  
20                   function, as implemented on the basis of said  
21                   at least one respective set of configuration  
22                   data, and said model of implementation of the  
23                   function itself included in said model  
24                   configuration, and (M1), characterized in that  
25                   ~~wherein said database [{DB}] contains~~  
26                   a model configuration as well as a set of  
27                   configuration data to allow the ~~aforsaid~~  
28                   verification by said verification module  
29                   [[ (C) ] ] in relation with ~~at least one among:~~  
30                   an interfacing element between two nodes [[ (k,  
31                   k+1) ] ] of said plurality ~~, and~~ or a plurality  
32                   of respective sets of configuration data [[ (CF,  
33                   CM) ] ] of said element, said plurality of  
34                   respective sets of configuration data  
35                   expressing respective different configuration  
36                   states of the element.

1                   12. (currently amended) The system as claimed in claim  
2                   11, further comprising characterized in that it comprises : [[ - ] ]  
3                   a simulation module [[ (S) ] ] to simulate [[ , ] ] based on  
4                   said at least one respective set of configuration data of the  
5                   element and in the absence of interaction with the element  
6                   subjected to control, the implementation of said at least one

7 function and generating at least a respective outcome of  
8 implementation of the function itself by the element subjected to  
9 control, ~~and in that~~ said verification module [(C) is] being  
10 configured to verify the correspondence between said at least one  
11 respective outcome of implementation obtained by simulation and the  
12 corresponding implementation model included in said model  
13 configuration [(M1)].

1 13. (currently amended) The system as claimed in claim  
2 ~~11 or claim 12, characterized in that wherein~~ said verification  
3 module [(C)] is configured to operate on a plurality of  
4 respective sets of data constituting an exhaustive representation  
5 of the allowed configuration states for said at least one element  
6 subjected to control.

1 14. (currently amended) The system as claimed in ~~any of~~  
2 ~~the claims 11 through 13, characterized in that claim 11 wherein~~  
3 the system itself is configured to modify the data included in said  
4 at least one respective set of configuration data [(..., CFk1,  
5 CFk, CFk1,...)] of each element subjected to control in order to  
6 obtain the correspondence between the actual configuration of the  
7 element and said model configuration [(M1)].

1 15. (currently amended) The system as claimed in ~~any of~~  
2 ~~the claims 11 through 14, characterized in that claim 11 wherein~~

3 said database  $[(DB)]$  contains a model configuration  $[(M1)]$   
4 representative of at least one  $[(among)]$  of the group including:

5 a set of configuration data that it is required be  
6 identical on all the homologous elements of the network in the  
7 cases of configuration controls;

8 a set of expected behaviors for an element in the case of  
9 functional analyses; and  $[(~)]$

10 a set of exhaustive behaviors of all elements that can be  
11 traversed in the case of simulation of a determined service  
12 throughout the network.

1 16. (currently amended) The system as claimed in claim  
2 11, further comprising any of the claims 11 through 15,  
3 ~~characterized in that it comprises~~

4 a control management station  $[(W1)]$  for generating said  
5 model configuration  $[(M1)]$ .

1 17. (currently amended) The system as claimed in ~~any of~~  
2 ~~the previous claims 11 to 16, characterized in that it comprises~~  
3 claim 11, further comprising

4 a plurality of control stations  $[(U1, \dots, Un)]$  able to  
5 drive said verification module  $[(C)]$ .

1 18. (currently amended) The system as claimed in ~~any of~~  
2 ~~the claims 11 a 17, characterized in that at least one, and~~



3 ~~preferably both, of claim 11 wherein~~ said database {DB} ~~and or~~  
4 said verification module [[(C) are]] is located in a centralized  
5 position relative to said elements [[(..., k-1, k, k+1,...)]]  
6 subjected to control.

1 19. (currently amended) The system as claimed in claim  
2 ~~12, characterized in that wherein~~ said simulation module [[(S)]]  
3 comprises a respective set of function for the simulation of  
4 respective functions [[alities]].

1 20. (currently amended) The system as claimed in claim  
2 ~~12 or claim 19, characterized in that wherein~~ said simulation  
3 module [[(S)]] operates according to step-by-step simulation modes.

1 21. (currently amended) A computer program product able  
2 to be directly loaded into the internal memory of at least one  
3 digital computer and comprising portions of software code to  
4 implement the method as claimed in ~~any of the claims 1 through 10~~  
5 claim 1.